

#### ABSTRACT

A non-aqueous electrolytic solution is advantageously used in preparation of a lithium secondary battery excellent in cycle characteristics. In the non-aqueous electrolytic solution for a lithium secondary battery, an electrolyte salt is dissolved in a non-aqueous solvent. The non-aqueous electrolytic solution further contains a vinylene carbonate compound in an amount of 0.01 to 10 wt.%, and an alkyne compound in an amount of 0.01 to 10 wt.%.